## HIGH RANGE WATER REDUCERS IN PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS

The Standard Specifications are revised as follows:

SECTION 707, BEGIN LINE 115, DELETE AND INSERT AS FOLLOWS:

(c) Concrete. Concrete shall be air entrained and in accordance with the applicable provisions requirements of 702.05. Water-reducing, or water-reducing and retarding

admixtures, or high range water reducing and retarding admixture systems may be used. Admixture and admixture systems shall be in accordance with 912.03. The use of either a type A or a type D chemical admixture shall be in accordance with 702.05 as specified for class C concrete. If a high range water reducing admixture system is to be used in portland cement concrete, the procedures for batching shall be consistent. The concrete shall be mixed until a uniform consistency is achieved.

Admixtures shall not contain chlorides which have been added as

an ingredient of manufacture. Admixtures, other than air-entraining admixtures, shall not

be used with air-entrained cement. The cement content of the mixed concrete shall be sufficient to obtain the specified minimum 28 day compressive strength. The provisions of

the yield test to determine the cement content in accordance with 109.01(e) will not apply.

Slump shall be no less than 50 mm (2 in.) nor more than 125 mm (5 in.). Precast concrete

members which are not prestressed shall have a minimum compression strength of 31 MPa (4500 psi) in 28 days *Concrete with high range water reducing or a high range water reducing retarding admixture system shall be in accordance with the requirements as follows:* 

- 1. The slump shall be a minimum of 75 mm (3 in.) and a maximum of 150 mm (6 in.).
- 2. The amount of time from mixing to final placement and consolidation shall be a maximum of 30 minutes.
- 3. The concrete mixture shall not be retempered with additional amounts of high range water reducing or high range water reducing and retarding admixture after the initial mixing has been completed.